



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification:

B23K 26/00

COPY

(11) International Publication Number:

WO 00/20157

(43) International Publication Date:

13 April 2000 (13.04.00)

(21) International Application Number: PCT/GB99/03241

(22) International Filing Date: 30 September 1999 (30.09.99)

(30) Priority Data:
9821375.4 1 October 1998 (01.10.98) GB

(71) Applicant (for all designated States except US): THE WELDING INSTITUTE [GB/GB]; Granta Park, Great Abington, Cambridge CB1 6AL (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): JONES, Ian, Anthony [GB/GB]; Bardsfield Cottage, Hadstock, Cambridge CB1 6NX (GB). WISE, Roger, Jeremy [GB/GB]; 130 Exning Road, Newmarket (GB).

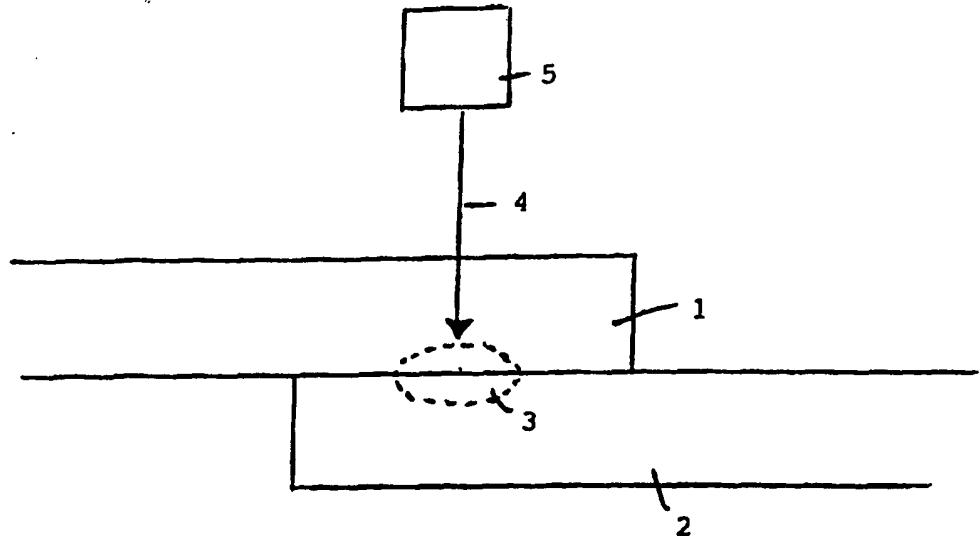
(74) Agent: GILL JENNINGS & EVERY; Broadgate House, 7 Eldon Street, London EC2M 7LH (GB).

(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published

With international search report.

(54) Title: WELDING METHOD



(57) Abstract

A method of forming a weld between workpieces (1, 2) over a joint region (3). The method comprises: exposing the joint region (3) to incident radiation (4) having a wavelength outside the visible range so as to cause melting of the surface of one or both workpieces at the joint region, and allowing the melted material to cool thereby welding the workpieces together. A radiation absorbing material is provided at the joint region (3) in one of the workpieces (1,2) or between the workpieces which has an absorption band matched to the wavelength of the incident radiation so as to absorb the incident radiation and generate heat for the melting process. The absorption band lies outside the visible range so that the material does not affect the appearance of the joint region (3) or the workpieces (1, 2) in visible light.